

STATE OF SOUTH CAROLINA) BEFORE THE CHIEF PROCUREMENT
OFFICER
COUNTY OF RICHLAND)

In the Matter of Protest of:)

Lindler Construction Company)

Clemson University)

IFB No. 5431)

Furnish & Install a Radio Frequency)

Shielded Room)

DECISION

POSTING DATE:

April 17, 2006

This matter is before the Chief Procurement Officer (CPO) pursuant to a letter of protest from Lindler Construction Company (Lindler). With this invitation for bids (IFB), Clemson University (Clemson) attempts to procure a radio frequency shielded room for research into radio antenna technology. Clemson only intends to procure with this procurement the shielded enclosure, which it plans to complete into an anechoic chamber. Clemson will install the absorbing materials later. In the letter, Lindler protested Clemson's specifications alleging that line item #14, Testing of the Radio Frequency Shielded Room, cannot be met by any bidder.

In order to resolve the matter, the CPO conducted a hearing on March 24, 2006. Appearing before the CPO were Lindler, represented by Bill Davis and Clemson, represented by Jimmy Boleman, Director of Purchasing, and Wilson Pearson, Ph.D., Director of the Center for Research in Wireless Communications, of the Holcombe Department of Electrical & Computer Engineering.

NATURE OF PROTEST

Lindler argued "the specifications states the following in line item #14 second leg of the RF testing will be at least 90 db from 10 GHz to 40 GHz." According to Lindler:

[c]ommercially available RF Power Filters are only rated to 18 GHz. Also the type of RF shielding is normally tested as a completed system with the absorber installed when the second leg of the test are done.

Should it be acceptable for the second leg of the RF test be performed as stated prior to installing the absorber and record that information for reference only and final test as a completed system with the absorber installed?

Lindler objected to line item # 14 of Clemson's specifications in two respects. First, Lindler alleged that the filters, which shield radio frequencies at points of power line entry into the testing chamber, as specified by Clemson, "are not commercially available." Second, Lindler alleged that the testing required under the specifications should be delayed until after the absorbers (the cone shaped insulation similar to that used in sound proofing rooms) are installed.

RESPONDENT'S POSITION

Clemson responded that the specifications are necessary for Dr. Pearson's research. According to Dr. Pearson, his research will eventually require testing up to 110 GHz. He stated that he only required successful shielding up to 40 GHz because reliable data for testing above 40 GHz is not commercially available.

Dr. Pearson submitted a response to the protest to the CPO dated March 1, 2006 writing:

Lindler protests on two grounds. First, they question the achievability of the 90 dB shielding requirement between 10 GHz and 40 GHz, stating that "commercially available RF Power Filters are only rated to 18 GHz."

1. We have dealt with three other manufacturers who have not questioned this specification. In Attachment 1, we show the specifications published on web pages of ETS-Lindgren, another shield vendor. ETS-Lundgren identifies the type of fabrication identified in our specification as "Series 81." They publish a plane wave shielding effectiveness, shown in the attachment, of 110 dB between 300 kHz and 1 GHz, dropping to approximately 103 dB at

10 GHz, and dropping to 100 dB at 50 GHz. Clearly, our specification is 10 dB more relaxed than this specifications.

2. Attachment 1 also contains a tabulation of ETS-Lindgren's family of power line filters. (ETS-Lindgren makes a broad offering in the electromagnetic compatibility marketplace, and manufacture filters as well as shielded enclosures. Most often vendors would purchase filters from an outside organization.) One sees that none of the ETS-Lindgren product line is specified at frequencies beyond 18 GHz, yet this vendor achieves 100 dB of shielding effectiveness at 50 GHz. Clearly, features other than the filter specification alone influence the filter's effect on overall shielding effectiveness of an enclosure. Further, one wishing to employ a filter whose specification was limited to 18 GHz could measure to determine what the actual performance of the filter is at frequencies higher than 18 GHz. If the 18 GHz specification is the highest defined, then manufacturers of shielded enclosures must be ascertaining actual performance by some means, or else using features other than the filter alone to achieve the required shielding.

Lindler's second grounds for protest states, "Should it be acceptable for the second leg of the RF test to be performed as stated prior to installing absorber and record that information for reference only and final test as a completed system with install."

Our responses are as follows:

This procurement deals with a shielded enclosure, only. It is true that we plan to use the enclosure as an anechoic chamber and will install absorbing material in it. That is entirely irrelevant to the present procurement. (We do mention anechoic material for information only in specification 4.0.) The specifications and testing that we specify defines the shielded enclosure only. The test ensures that Clemson University obtains value-received in the subject procurement. The integration of the shield and absorber and consequences thereof is the responsibility of Clemson University. (We have chosen to undertake the absorber design and installation on our own for reasons not related to the shield procurement in any way.)

IEEE Standard 299 defines a test procedure for a(n) (empty) shielded enclosure. Augmentation of shielding through the addition of absorbing material is not addressed in the specification. This attests to the fact that testing of a bare shield is standard procedure.

The measurement of shielding effectiveness of an absorber-clad enclosure is at times practices in anechoic chamber procurements, where a single vendor provides the shielded enclosure with absorbing material attached. We have not seen this practice applied except in lower-quality shielding systems, such as copper foil on sheet rock, than the one specified in our Bid, the lower-quality approach requiring the aid of the absorber to meet specifications.

Dr. Pearson wrote further, “We agree that the attainment of the specifications between 10 and 40 GHz requires care, but is nevertheless attainable; [t]hree other organizations (ETS-Lindgren, Braden Shielding, and Raymond EMC) have bid on these specifications without questioning the defined shielding performance; and Lindler Construction Company has bid twice before and did not question this specification.”

CPO’s FINDINGS OF FACT

Lindler’s protest centers on item 14 of the specifications, which reads:

14. The overall shielding effectiveness of the chamber shall be at least 100 dB between 350 MHz and 10 GHz as measured by Plane-wave testing methods in IEEE Std. 299-1991. It shall be at least 90 dB from 10 GHz to 40 GHz. Clemson University will choose three frequencies and 20 locations on the structure boundary at which tests are to be conducted. A general prescreening will be performed by Clemson University for RH leaks before the 20 points are chosen.

Lindler, with support from a representative of Global Partners, who participated in the hearing via conference call, argued that no one can bid on the specifications as stated in the IFB. Their entire case was based upon their own testimony, absent corroboration from any other competitors.

According to Clemson, at least three companies can perform under the specifications: ETS Lingram, Braden Shielding, and Raymond Shielding of Canada. Clemson has bid this

procurement four times and collected bids each time; including two bids from Lindler and Global Partners. According to Clemson, no one has protested the specifications until this solicitation.

Lindler has not provided any evidence, or argued for that matter, that Clemson does not require these specifications for Dr. Pearson's research.

CONCLUSIONS OF LAW

The Consolidated Procurement Code allows the state to develop specifications for its actual needs. The Code reads, "All specifications shall be drafted so as to assure cost effective procurement of the state's **actual needs** and shall not be **unduly restrictive**." [11-35-2730] [Emphasis added] The highlighted phrases recognize that the state must be allowed to develop specifications that allow it to procure products and services that meet its "actual needs." The CPO has not received any evidence that the specifications contained in this IFB are not required to meet Clemson's actual needs.

In meeting its actual needs, the state may specify requirements that may limit competition including brand name or equal specifications and "bid as specified" requirements up to and including sole source procurements, which are authorized under the Code in certain circumstances. When specifying its actual needs, the Code requires that the state may not be unduly restrictive. However, the CPO has not received any evidence that anyone other than Lindler cannot meet these specifications. A single bidder not being able to bid does not automatically determine that the specifications are "unduly restrictive." No other bidder has raised a concern about the specifications.

The Procurement Review Panel has addressed the matter of specifications, writing:

[A] specification can be restrictive so long as it is not “unduly” so – in other words, it must be written in such a manner as to balance the reasonable, objective needs of the State against the goal of obtaining maximum practicable competition.

In analyzing whether a specification meets the requirement that it not be unduly restrictive, the Panel will not substitute its judgment for the judgment of the using and procuring agencies so long as the choice of specification is not unreasonable, arbitrary, capricious or contrary to the Procurement Code. (Case no. 1992-7, In Re: Protest of Cambex Corporation)

Dr. Pearson insisted that these specifications are necessary to allow him to start his research. In fact, he stated that they are still not adequate for the advanced testing that he plans to do with this equipment. The CPO has not received any evidence whatsoever to refute Dr. Pearson’s need for specification #14. Absent a successful argument that Clemson has been unreasonable, arbitrary, capricious, or contrary to the Procurement Code in developing this specification, the precedent established by the Procurement Review Panel, as expressed above, governs the decision of the CPO.

DETERMINATION

For the reasons enumerated above, the protest is denied.

R. Voight Shealy
Interim Acting Chief Procurement Officer
for Construction

4-17-06

Date

Columbia, S.C.

STATEMENT OF RIGHT TO FURTHER ADMINISTRATIVE REVIEW

The South Carolina Procurement Code, in Section 11-35-4210, subsection 6, states:

(6) Finality of Decision. A decision under subsection (4) of this section shall be final and conclusive, unless fraudulent, or unless any person adversely affected by the decision requests a further administrative review by the Procurement Review Panel under Section 11-35-4410(1) within ten days of posting of the decision in accordance with Section 11-35-4210(5). The request for review shall be directed to the appropriate chief procurement officer, who shall forward the request to the panel, or to the Procurement Review Panel and shall be in writing, setting forth the reasons why the person disagrees with the decision of the appropriate chief procurement officer. The person may also request a hearing before the Procurement Review Panel.

Additional information regarding the protest process is available on the internet at the following web site:
www.procurementlaw.sc.gov

FILING FEE: Pursuant to Proviso 66.1 of the 2005 General Appropriations Act, "[r]equests for administrative review before the South Carolina Procurement Review Panel shall be accompanied by a filing fee of two hundred and fifty dollars (\$250.00), payable to the SC Procurement Review Panel. The panel is authorized to charge the party requesting an administrative review under the South Carolina Code Sections 11-35-4210(6), 11-35-4220(5), 11-35-4230(6) and/or 11-35-4410(4). . . . Withdrawal of an appeal will result in the filing fee being forfeited to the panel. If a party desiring to file an appeal is unable to pay the filing fee because of hardship, the party shall submit a notarized affidavit to such effect. If after reviewing the affidavit the panel determines that such hardship exists, the filing fee shall be waived." 2005 S.C. Act No. 115, Part IB, § 66.1. PLEASE MAKE YOUR CHECK PAYABLE TO THE "SC PROCUREMENT REVIEW PANEL."

LEGAL REPRESENTATION: In order to prosecute an appeal before the Panel, a business must retain a lawyer. Failure to obtain counsel will result in dismissal of your appeal. *Protest of Lighting Services*, Case No. 2002-10 (Proc. Rev. Panel Nov. 6, 2002) and *Protest of The Kardon Corporation*, Case No. 2002-13 (Proc. Rev. Panel Jan. 31, 2003). Copies of the Panel's decisions are available at www.state.sc.us/mmo/legal/paneldec.htm